

## **REASONS FOR ALLOWANCE**

### ***Acknowledgements***

1. Applicants' amendment filed on March 25<sup>th</sup>, 2008 has been entered. Accordingly, claims 8, 9, 11, 12, 14, 15, and 17-22 remain pending.

## **EXAMINER'S AMENDMENT**

2. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John S. Sensny on July 18<sup>th</sup>, 2008.

The application has been amended as follows: claims 1-7, 10, 13, and 16 are cancelled.

Authorization for this examiner's amendment was given in a telephone interview with John S. Sensny on January 30<sup>th</sup>, 2009.

**Claim 8** has been amended as follow: A computer implemented method for allocating finished units in a production facility to orders received from customers for those units, the computer implemented method comprising the steps:

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identifying, via one or more computers, orders from customers for finished units;

identifying, via said one or more computers, finished units in production at a defined time and available to fill said orders;

identifying, via said one or more computers, defects in the finished units and defects that the customers are willing to accept;

of said identified finished units, identifying, via said one or more computers, valid units that are available to be assigned to said orders;

for each of the finished units, creating, via said one or more computers, an associated surface defect map indicating the locations of defects in said each finished unit and characteristics of said defects;

using, via said one or more computers, said defect maps to search for the largest area in each of the finished units that can be assigned to each order;

iteratively assigning and unassigning, via said one or more computers, valid units to said orders, in a defined sequence of said orders, until either (i) all the orders are fulfilled, or (ii) there are no more assignment options to be tested, including;

identifying, via said one or more computers, any incomplete orders, and for each identified incomplete order, searching among valid units previously assigned to other orders for a unit that fulfills said identified incomplete order, and

if a unit, previously assigned to some other order, is found that fulfills said identified incomplete order, then, via said one or more computers,

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(i) unassigning said found unit from said other order, and (2) re-assigning said found unit to said identified incomplete order.

***Examiner's Statement of Reason for allowance***

3. The following is a statement of reasons for the indication of allowable subject matter:

The most relevant reference is the *Kalagnanam et al.* reference. The *Kalagnanam et al.* reference discloses a computer implemented method that generates near-optimal solutions to the multi-objective inventory matching problem by solving for multiple objectives simultaneously and generating multiple non-dominating solutions [see abstract].

Kalagnanam fails to disclose identifying finished units in production at a defined time and available to fill said orders and identifying defects in the finished units and defects that the customers are willing to accept, and creating an associated surface defect map indicating the locations of defects in said each finished unit and characteristics of said defects.

The cited most NPL but not applied Reference is the IBM Research Report (Inventory Matching Problems in the Steel industry) that teaches matching an order book against surplus inventory as a preprocessing step to production planning and were encountered in the operation of a large steel plant. However, the IBM Research Report reference fails to disclose identifying finished units in production at a defined time and available to fill said orders and identifying defects in the finished units and defects that the customers are willing to accept, and creating an associated surface defect

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map indicating the locations of defects in said each finished unit and characteristics of said defects.

Updated searches revealed no references that disclosed the claimed invention, nor were any further references identified which could be reasonable combined with Kalagnanam.

For this reason, claims 11 and 14 are deemed to be allowable over prior art of record and claims 12, 15, 18, and 19 are allowed by dependency.

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GARCIA ADE whose telephone number is (571)272-5586. The examiner can normally be reached on M-F 8:30AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Gart can be reached on 571.272.3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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